(j) Polyethylene phthalate plastics, composed of ethylene terephthalate-isophthalate containing a minimum of 98 weight percent of polymer units derived from ethylene terephthalate, or ethylene-1,4-cyclohexylene dimethylene terephthalate copolyesters described in §177.1315(b)(3), conforming with the specifications prescribed in paragraph (j)(1) of this section, are used as provided in paragraph (j)(2) of this section.

(1) *Specifications.* (i) The food contact surface meets the specifications in paragraph (f)(1) of this section and

(ii)(*a*) *Containers with greater than 500 mL capacity.* The food-contact surface when exposed to 95 percent ethanol at 120 °F for 24 hours should not yield chloroform-soluble extractives in excess of 0.005 mg/in^2.

(*b*) *Containers with less than or equal to 500 mL capacity.* The food contact surface when exposed to 95 percent ethanol at 120 °F for 24 hours should not yield chloroform-soluble extractives in excess of 0.05 mg/in^2.

(2) *Conditions of use.* The plastics are used for packaging, transporting, or holding alcoholic foods that do not exceed 95 percent alcohol by volume.

[42 FR 14572, Mar. 15, 1977, as amended at 42 FR 18611, Apr. 8, 1977; 44 FR 40886, July 13, 1979; 45 FR 6541, Jan. 29, 1980; 47 FR 11844, Mar. 19, 1982; 47 FR 53346, Nov. 26, 1982; 48 FR 30361, July 1, 1983; 49 FR 10110, Mar. 19, 1984; 50 FR 31047, July 24, 1985; 51 FR 3772, Jan. 30, 1986; 52 FR 32917, Sept. 1, 1987; 54 FR 15750, Apr. 19, 1989; 54 FR 24898, June 12, 1989; 60 FR 57927, Nov. 24, 1995; 60 FR 61654, Dec. 1, 1995; 61 FR 46718, Sept. 5, 1996]

§ 177.1632 Poly (phenyleneterephthalamide) resins.

Poly(phenyleneterephthalamide) resins identified in paragraph (a) of this section may be safely used as articles or components of articles intended for repeated contact with food.

(a) *Identity.* For the purpose of this section, the poly(phenyleneterephthalamide) resins (CAS Reg. No. 26125–61–1) are produced by the polymerization of terephthalolyl chloride with *p*-phenylenediamine. The poly(phenyleneterephthalamide) resin fibers and yarns may contain optional adjuvant substances required in their preparation and finishing.

(b) *Optional adjuvant substances.* The poly(phenyleneterephthalamide) resins identified in paragraph (a) of this section may contain the following optional adjuvant substances, subject to any limitation on their use:

(1) Optional adjuvant substances authorized for this use in accordance with §174.5 of this chapter.

(2) Optional finish components, total weight not to exceed 1 percent by weight of the base polymer, as follows:

List of substances	Limitations
Diundecylphthalate (CAS Reg. No. 3648–20–2).	
Mono- and dipotassium salts of lauryl phosphate (CAS Reg. No. 39322–78–6).	
o-Phenylphenol (CAS Reg. No. 90–43–7) .	For use as a fungicide for finish coating materials. Not to exceed 0.01 percent by weight of the base polymer.
Poly(oxyethylene/oxypropylene)monobutylether (CAS Reg. No. 9038–95–3).	
Poly(oxyethylene) mono(nonylphenyl)ether (CAS Reg. No. 9019–45–9).	
Polyvinyl methylether (CAS Reg. No. 9003–09–2).	
Poly(oxyethylene) sorbitol monolaurate tetraoleate (CAS Reg. No. 71243–28–2).	
Poly(oxyethylene) sorbitol hexaoleate (CAS Reg. No. 57171–56–9).	
4,4′-Butylidenebis (6-*tert*-butyl-*m*-cresol) (CAS Reg. No. 85–60–9) .	For use only as an oxidation inhibitor for finish coating materials. Not to exceed 0.01 percent by weight of the base polymer.

(c) *Specifications.* (1) Poly(phenyleneterephthalamide) resins in the form of continuous filament yarns or fibers that have been scoured in accordance with paragraph (d)(1) of this section, when refluxed in a 50 percent ethanol/water mixture for 24 hours, yields total extractables not exceeding 0.5 percent by weight of the sample.

(2) Poly(phenyleneterephthalamide) resins in the form of pulp, when refluxed in a 50 percent ethanol/water mixture for 24 hours, yields total extractables not exceeding 0.65 percent by weight of the sample.

(d) *Conditions of use.* (1) Poly(phenyleneterephthalamide) resins in the form of continuous filament

yarns and fibers may be used as components of articles intended for repeated use in contact with food at temperatures not to exceed 260 °C (500 °F). All items are scoured prior to use by agitation in a water bath containing 0.5 gram/liter of tetrasodium pyrophosphate and 0.5 percent detergent. The items are agitated at 80 °C (180 °F) for 20 minutes, and then subjected to a cold water rinse.

(2) Poly(phenyleneterephthalamide) resins in the form of pulp may be used as gaskets and packing for food processing equipment at temperatures not to exceed 260 °C (500 °F).

[57 FR 3125, Jan. 28, 1992]

§ 177.1635 Poly(p-methylstyrene) and rubber-modified poly(p-methylstyrene).

Poly(*p*-methylstyrene) and rubber-modified poly(*p*-methylstyrene) identified in this section may be safely used as components of articles intended for use in contact with food, subject to the provisions of this section:

(a) *Identity*. For the purposes of this section, poly(*p*-methylstyrene) and rubber-modified poly(*p*-methylstyrene) are basic polymers, manufactured as described in this paragraph, meeting the specifications prescribed in paragraph (c) of this section.

(1) Poly(*p*-methylstyrene) (CAS Reg. No. 24936–41–2) polymer produced by the polymerization of *p*-methylstyrene.

(2) Rubber-modified poly(*p*-methylstyrene) (CAS Reg. No. 33520–88–6) polymer produced by combining styrene-butadiene copolymer and/or polybutadiene with poly(*p*-methylstyrene), either during or after polymerization of the poly(*p*-methylstyrene), such that the finished polymers contain not less than 75 weight percent of total polymer units derived from *p*-methylstyrene) monomer.

(b) *Optional adjuvants*. The basic polymers identified in paragraph (a) of this section may contain optional adjuvant substances required in the production of such basic polymers. Such optional adjuvant substances may include substances permitted for such use by applicable regulations in this chapter, substances generally recognized as safe in food, substances generally recognized as safe in indirect additives, and substances used in accordance with prior sanction or approval.

(c) *Specifications*. (1) Poly(*p*-methylstyrene) basic polymers identified in paragraph (a)(1) of this section shall contain not more than 1 weight percent of total residual *p*-methystyrene monomer, as determined by a gas chromatographic method titled, ''Gas Chromatographic Determination of PMS and PET in PPMS Basic Polymers,'' which is incorporated by reference. Copies are available from the Center for Food Safety and Applied Nutrition (HFS–200), Food and Drug Administration, 5100 Paint Branch Pkwy., College Park, MD 20740, or available for inspection at the Office of the Federal Register, 800 North Capitol Street, NW., suite 700, Washington, DC 20408.

(2) Rubber-modified poly(*p*-methylstyrene) basic polymers identified in paragraph (a)(2) of this section shall contain not more than 0.5 weight percent of total residual *p*-methylstyrene monomer, as determined by the method identified in paragraph (c)(1) of this section

(d) *Other specifications and limitations*. The poly(*p*-methylstyrene) and rubber-modified poly(*p*-methylstyrene) identified in and complying with this section, when used as components of the food-contact surface of any article that is the subject of a regulation in parts 175, 176, 177, 178 and § 179.45 of this chapter, shall comply with any specifications and limitations prescribed by such regulation for the article in the finished form in which it is to contact food.

(e) *Conditions of use*. Poly(*p*-methylstyrene) basic polymers and rubber-modified poly(*p*-methylstyrene) basic polymers identified in paragraphs (a)(1) and (a)(2), respectively, of this section shall be used in contact with food only under conditions of use B through H set forth in table 2 of § 176.170(c) of this chapter.

[48 FR 31384, July 8, 1983, as amended at 54 FR 24898, June 12, 1989; 55 FR 52989, Dec. 26, 1990]